DOCUMENT RESUME

ED 467 547 RC 023 672

AUTHOR	Beaulieu, Lionel J.
TITLE	Creating Vibrant Communities & Economies in Rural America.
INSTITUTION	Southern Rural Development Center, Mississippi State, MS.
REPORT NO	SRDC-225
PUB DATE	2002-08-00
NOTE	14p.; Colored charts may not reproduce clearly.
AVAILABLE FROM	Southern Rural Development Center, Box 9656, Mississippi State, MS 39762. Tel: 662-325-3207; Fax: 662-325-8915; Web site: http://srdc.msstate.edu. For full text: http://srdc.msstate.edu/publications/vibrant_communities.pdf.
PUB TYPE	Information Analyses (070) -- Opinion Papers (120)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	Academic Aspiration; Access to Computers; *Community Development; Community Needs; Community Relations; Educational Attainment; Educational Economics; *Entrepreneurship; Family Influence; *Human Capital; Internet; Leadership Training; *Rural Areas; *Rural Development
IDENTIFIERS	Labor Force Analysis; Telecommunications Infrastructure

ABSTRACT

Although the economic expansion of the 1990s was felt even in small towns and rural areas, events in recent months point out that the economic health of rural America remains fragile. Rural manufacturing has suffered sizable employment declines in recent months and only modest expansion has occurred in the service sector--the lifeblood of rural job growth over the past decade. Wages in both sectors for the remaining jobs are less than in urban areas. Four strategies for strengthening the viability of rural America are offered. Community human capital resources can be enhanced by helping parents foster a home environment in which educational aspirations are developed, creating positive teacher-student and teacher-parent relationships in schools, and building youth-supportive communities that give youth a voice in community decisions and opportunities to experience positive role models outside of school. Entrepreneurial activities in communities can be spurred by providing access to quality workers, embracing and nurturing entrepreneurs, enacting public policies that support entrepreneurial development, and making entrepreneurship an explicit economic development strategy. The digital capacity of rural communities must be built through focused investments in rural telecommunications infrastructure. Civic engagement in rural communities can be expanded by involving all segments of the community in guiding its future, providing opportunities for new and expanded leadership development, sharing leadership responsibilities, and supporting the establishment of local-oriented small and entrepreneurial businesses. (Contains 22 references.) (TD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 467 547

Creating Vibrant Communities & Economies in Rural America

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Lionel J. Beaulieu
Southern Rural Development Center

RC 023672

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

H.D. BRODNAX

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

BEST COPY AVAILABLE

2

August 2002

Introduction

How quickly things change! Several months ago, most economic observers would have noted that rural America was in the midst of an economic boom. No doubt about it, the economic expansion that touched much of the United States over the course of the 1990s was being felt even in the small towns and cities of rural America. In fact, of the 23 million jobs created over the 1990-99 time period, more than 3.8 million were generated in the nonmetro areas of our nation. Finally, sustained economic growth had arrived in the corridors of rural America.

However, the series of events that have occurred in recent months have put us all on alert that the economic health of rural America remains fragile. While layoffs and business closures have become commonplace in many localities, the impact of such job losses appears to be particularly dramatic in nonmetro areas – areas with a more limited capacity to absorb displaced workers into their local labor markets. A study by Henderson (2002) offers clear evidence the rural manufacturing sector has suffered sizable employment declines in recent months and only modest expansion has occurred in the service sector – the lifeblood of rural job growth in rural America over the past decade or more. He states the end result of these trends has been an increasing number of layoffs, plant closures, and an upswing in unemployment rates among our nation's rural workforce.[1]

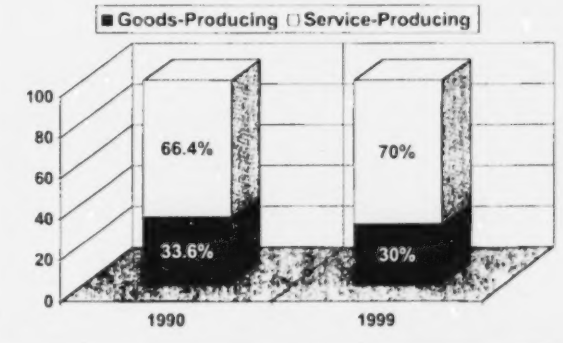
This article seeks to paint a realistic picture of what is happening in rural America today and attempts to offer some options for contributing to its economic and social advancement in the years ahead. We argue that a vibrant rural America will depend, in part, on four major elements: (1) expanding the quality of its human capital resources; (2) building an entrepreneurial spirit that supports internal economic development opportunities; (3) enhancing the digital capacity of rural places so they can be players in an increasingly technology-dependent economy; and (4) promoting broad-based involvement of local individuals in the civic life of their communities.

It's Not Your Daddy's Rural Economy

The economic complexion of today's nonmetro areas looks dramatically different from the pattern just three or four decades ago. For one, retail trade and services have now replaced agriculture and manufacturing as the economic drivers of rural America. These dramatic shifts are most evident when we examine job growth by the broad categories of goods-producing (farming, agricultural services, forestry, mining, construction and manufacturing) and service-producing sectors (transportation and public utilities, wholesale and retail trade, finance, insurance and real estate services, and government) sectors.

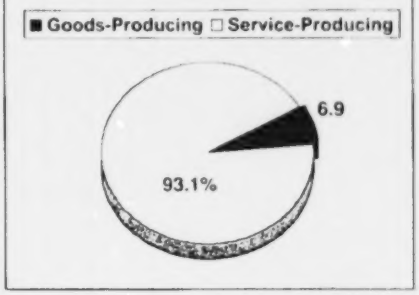
More than a third of all jobs in nonmetro U.S. in 1990 were tied to goods-producing industries. By 1999, that figure had slipped to 30 percent (Figure 1). What is most alarming, however, is the crucial role that service-sector industries have played in spurring rural economic growth during this time period. More than 93 percent of the full- and part-time jobs generated in nonmetro areas between 1990 and 1999 were generated by service-producing sector industries (Figure 2).

Figure 1. Employment Composition in the Nonmetro U.S., 1990 and 1999



1A case in point is my home state of Mississippi. From June 2000 through December 2001, nearly 21,500 workers lost their jobs due to layoffs or closures. Nearly 31 percent of these losses occurred in the last quarter of 2001. Moreover, it is the most rural areas of the state that are being especially hard hit by these employment declines.

Figure 2. Percent of Jobs Generated by Each Sector in the Nonmetro U.S., 1990-99



Despite the brisk rate of job growth in rural areas, however, no advances were made in narrowing the metro/nonmetro earnings gap. In fact, the disparity among metro and nonmetro earnings increased. In 1990, workers employed in the goods-producing sector of rural America earned 66 percent of what their metro counterparts employed in this same sector were earning. By 1999, this figure had dipped to 62 percent (Figure 3).

Similarly, average earnings for service-producing sector employees in the nonmetro U.S. were about 70 percent of the rate enjoyed by metro workers in 1990. By the end of the decade, the figure had declined to 66 percent (Figure 4). Hence, the wage gap between nonmetro and metro workers has actually accelerated over the course of the 1990s.

The key question is: "Why has the gap in average earnings garnered by metro and nonmetro workers actually widened in the last decade?" In a nutshell, rural service-sector industries that have expanded most rapidly are not providing the same level of earnings that the slower growing or declining goods-producing sector has been able to offer.

Table 1. **Why the Increasing Gap in Average Earnings?**

NM Industry Type	No. Employed 1990	No. Employed 1999	Job Growth 1990-99	Avg. Earnings 1999
Manufacturing	4,154,588	4,253,311	98,723	$34,021
Retail Trade	3,947,257	4,819,448	872,191	$15,111
Services	5,055,260	6,825,806	1,770,546	$20,778

69% of employment growth in the nonmetro U.S. between 1990-99 was linked to the Retail Trade and Services sectors.

Furthermore, these industries are not compensating nonmetro workers at comparable wages to metro workers. Thus, while new jobs have come to rural America, the wages tied to these jobs remains an issue of considerable concern.

A case in point is the nonmetro employment shifts in manufacturing and services between 1990 and 1999. Nearly 99,000 new manufacturing jobs were added to our nation's nonmetro areas over the time period, with 1999 earnings averaging about $34,000 per year (Table 1).

The services industry, on the other hand, added nearly 1.8 million new jobs to the nonmetro economy during this time period, providing just under $21,000 in 1999 average earnings for workers. Together with retail trade industry growth (another fast-growing industry offering low wages), 69 percent of all employment growth in nonmetro America were linked to these two industries. While the services industry has fueled employment growth in metro areas as well, the level of compensation received by metro workers employed in this industry has been significantly higher. In particular, average wages garnered by service industry workers were 64 percent higher in metro vs. nonmetro areas in 1999.

Figure 3. Average Earnings Per Job in the Goods-Producing Sector

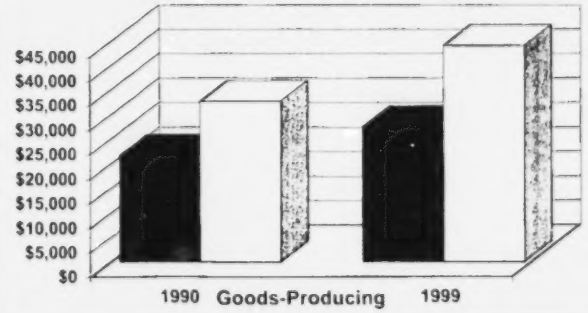
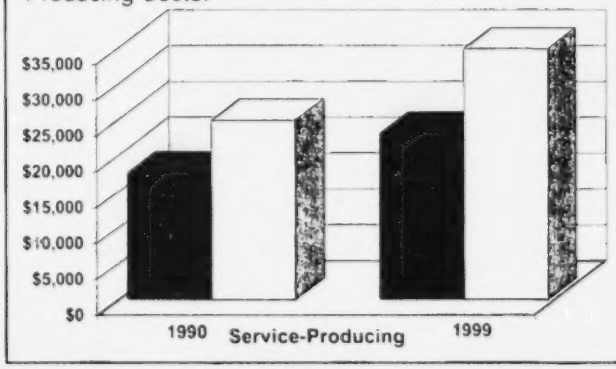


Figure 4. Average Earnings Per Job in the Service-Producing Sector



Human Capital Resources in Nonmetro America

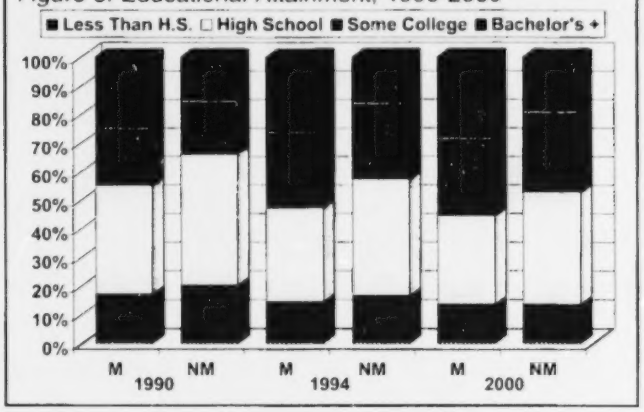
Undoubtedly, the historical presence of a larger pool of better-educated workers has contributed to the superior wage rates captured by metro workers vis-a-vis their nonmetro counterparts. Nonmetro workers have improved their human capital endowments in recent years, but not enough to effectively compete with metro areas for the best-paying jobs.

A simple examination of the educational endowments of metro and nonmetro adults (25 years old and older) over the past decade offers evidence to support this argument.

Information on the educational attainment of adults over the course of the 1990s does show that metro residents (25 years old and older) continue to outpace nonmetro adults with respect to their educational endowments. At the same time, there are encouraging signs indicating that nonmetro areas have made important strides in advancing their educational standing over the past decade (Figure 5). In particular:

- Both metro and nonmetro areas have witnessed significant declines in the proportion of its adult population (25 years old and older) having less than a high school education over the period of the 1990s. However, the rate of decline has been greater in nonmetro than in metro areas over the decade (20.3 percent in 1990 to 13.8 percent in 2000 in nonmetro U.S.; 17.2 percent in 1990 to 13.9 percent in 2000 in metro areas of the country).
- The percent of adult residents who have attended some college after graduating from high school has grown at virtually the same rate in nonmetro and metro areas. Nearly 29 percent of nonmetro adults had some college education in 2000, while the figure was 28 percent among metro adults.

Figure 5. Educational Attainment, 1990-2000

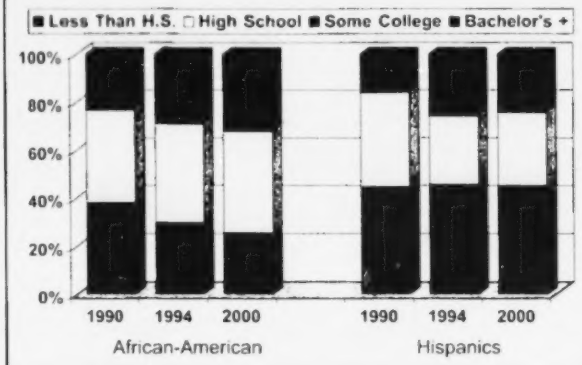


- The presence of a college-educated populace continues to be more evident in the metro areas of the country. Nearly 29 percent of metro residents had baccalaureate degrees or higher in 2000, while the figure was 19.5 percent among nonmetro adults. Despite this continuing metro/nonmetro gap in the presence of college-educated residents, the proportion of adults with a college education has actually expanded at a faster pace in nonmetro versus metro areas over the course of the 1990s (24.2 percent versus 14.2 percent rate of change, respectively).
- The gap in the proportion of college-educated residents of prime working age (i.e., 25-34 years of age) in metro and nonmetro areas has slowly declined during the 1990s. The difference was 12.1 percentage points in 1990 (25.8 percent in metro versus 13.7 percent in nonmetro areas), but stands at 9.9 percent today (28.9 percent versus 19 percent).

Collectively, these results paint a more encouraging picture regarding the improved human capital conditions in rural America. These types of advances offer new opportunities for rural areas to capture, or to generate, high-quality jobs that demand workers with educational credentials beyond high school.

At the same time, we must recognize that sustained economic growth in rural America will only be possible when the human capital conditions of all of its residents have been improved. For example, have racial and ethnic minorities

Figure 6. Nonmetro Educational Attainment, by Race and Ethnicity, 1990-2000



living in rural communities in the U.S. made important positive strides in improving their educational status? As a general observation, the trends are not entirely encouraging.

- The percent of nonmetro African-Americans with a college education has remained relatively stagnant over the 1990-2000 period. Barely 8 percent of nonmetro blacks had a college degree in 2000, slightly lower than the 8.4 percent recorded in 1990. At the same time, the percent completing a high school education, or securing some college education, has steadily increased over the past decade (Figure 6).
- Rural America's Latino population remains entrenched in the lowest rungs of the educational attainment ladder. More than 45 percent had less than a high school education in 2000, virtually identical to the percentage reported in 1990. Only one in four nonmetro Hispanics either had some college or a bachelor's degree in 2000 (Figure 6).

Thus, building an economically viable rural America will dictate that continued attention be directed at advancing the educational progress of all residents. Given that African-American and Latino populations are projected to be rural America's most rapidly expanding population in the decades ahead, then the sustainability of rural areas will be tied to their capacity to realize substantive improvements in the human capital of all their residents.

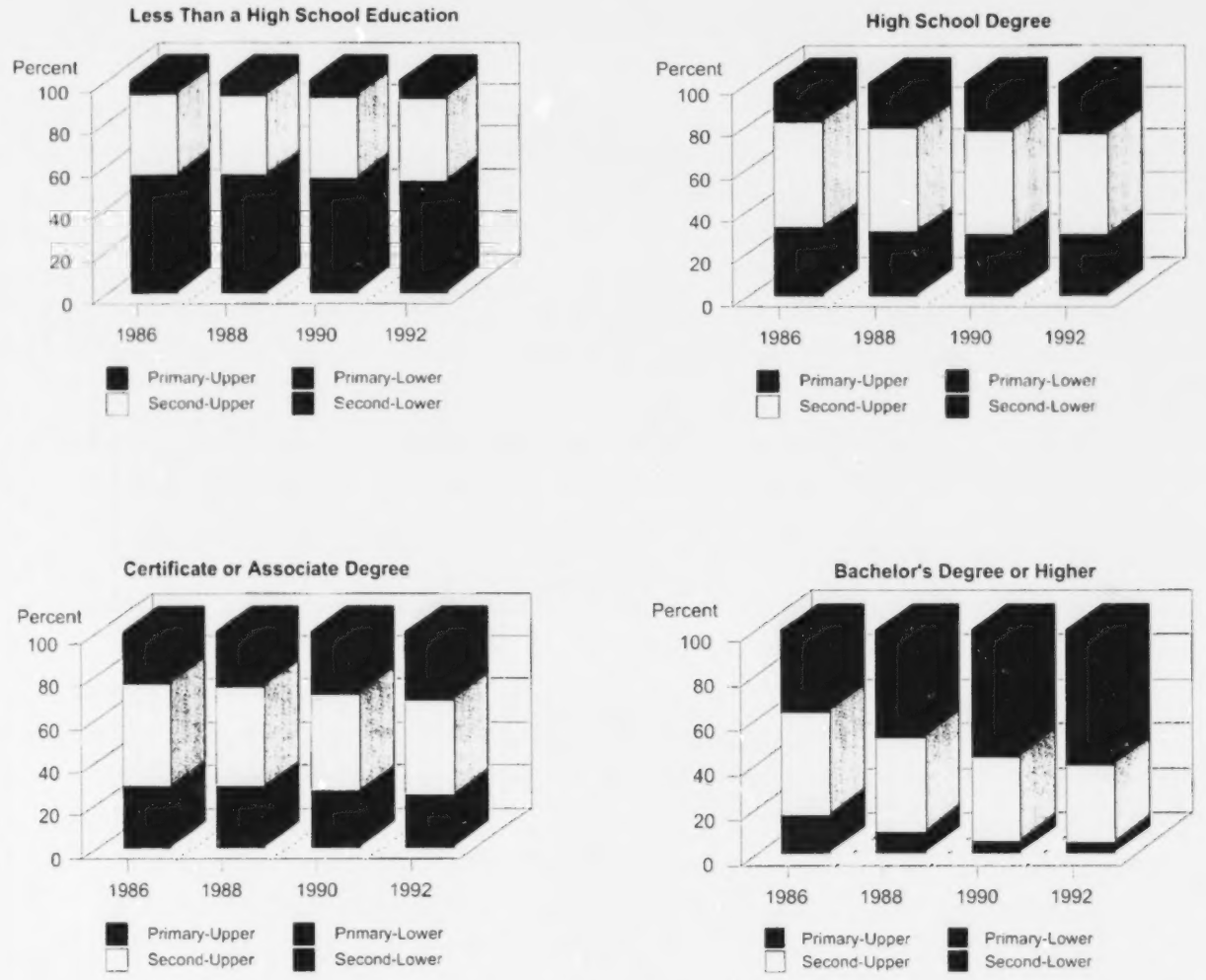
The key linkage between education and job success is undeniable. In fact, a study we completed not too long ago offers empirical evidence of the important role that education plays in securing and retaining decent jobs (Beaulieu and Barfield, 2000). Employing data from the High School and Beyond survey collected by the National Center for Education Statistics as part of a national longitudinal study of high school students initiated in the early 1980s, we examined the post-high school educational and labor force experiences of students in the South who were slated to graduate from high school in 1982. We then tracked their labor force employment in 1986, 1988 and 1992, examining how the quality of their jobs differed by their educational endowments (Figure 7).

Employing the occupational typology developed by Lorence (1987), the principle jobs held by our Southern respondents in 1986, 1988 and 1992 were classified into one of four categories: (1) upper-tier primary labor market; (2) lower-tier primary labor market; (3) upper-tier secondary labor market; and (4) lower-tier secondary labor market. These tiers are a measure of job quality, and the best jobs were located in the upper tier of the primary labor market, while the worse jobs were situated in the lower tier of the secondary labor market.

What our findings made all too clear is that education matters, and it matters a lot. Over the 1986-92 period, college-educated persons in our study were able to double their rate of employment in upper tier primary sector jobs and were able to expand their engagement in lower tier primary sectors jobs by 43 percent.

While not keeping pace with the best educated cohort of Southerners, persons with a certificate or associates degree experienced slightly better job advancement over the six year period than was the case for participants with terminal high school degrees.

Figure 7. Labor Force Experiences in Market Tiers by Level of Education



Finally, the least educated individuals (those with less than a high school education) were essentially denied access to primary labor market sector jobs. Nearly nine of every 10 of these persons remained entrenched in secondary labor market sector jobs for the entire 1986-92 period. And this pattern remained fairly consistent across all urban, suburban and rural areas of the U.S. South. While these data reflect on conditions nearly ten years ago, few would argue that the disparity between the best and least educated in terms of labor market experiences may be even more dramatic today.

If rural areas are to effectively participate in a more complex and technology sophisticated global economy, an educated and skilled pool of workers will be an absolute requirement (Israel et al., 2001).

Strategies for Strengthening the Viability of Rural America

No doubt, a plethora of strategies could be offered for advancing the long-term well-being of rural America. We restrict ourselves to only a handful of possibilities, ones we genuinely believe are the most crucial to the long-term welfare of rural communities.

Enhance the Community's Human Capital Resources

It is our belief that the top priority on the agenda for rural America is the continued enhancement of its human resource endowments. Obviously, great strides have been made during the past decade, but additional improvements are needed to position rural areas to successfully generate and capture quality jobs for their workers in the future. The key question is how might advances in the human capital resources of rural areas be realized? We would argue that we must start with the youth living in rural America today.

We would suggest that our traditional method for promoting the educational advancement of our students is simply not enough. During the past decade, national leaders have offered many policy strategies for achieving educational progress among our nation's youth. While these plans appear viable, they often place the burden of promoting academic achievement on the shoulder of local school systems. In our view, academic success depends as much on what happens at home or in the communities in which young people are embedded as it does on what is taking place in the classroom.

Let us offer evidence to support our argument. A recent study by Israel and Beaulieu (2002) explored the set of factors that give shape to the educational success of youth who were enrolled in the eighth grade. They examined the background attributes of these individuals, including their cognitive abilities, their race and gender. Next, they explored the nature and strength of interactions between parents and the child, as well as key family features, such as the presence of both parents in the home, the educational status of the parents, and the numbers of siblings. Finally, they studied the degree to which schools and communities provide an environment in which relationships between adults and youth are nurtured and which give shape to the norms, values and aspirations of these young individuals. What they found was quite interesting.

Background and family features proved to be the most significant factors explaining the level of educational success of these eighth-graders on standardized composite test scores involving math and reading. Although less prominent in terms of impact, both schools and communities did play an important role in advancing the educational success of youth, but their impacts were nowhere close to the influence provided by the family.

In light of these findings, we would suggest that efforts to promote the educational advancement of youth must extend beyond simple expansion of school funding or improved performance levels on annual student-assessment tests. Complementary investments are needed in the following arenas:

1. Help equip parents and guardians with the knowledge and tools they need to foster a home environment in which educational aspirations are developed and nurturing activities that promote educational progress of their children are established;
2. Create an environment in which positive teacher/student and positive teacher/parent relationships are a central part of what happens in the school; and
3. Build youth-supportive communities — communities that demonstrate through their investments and actions that youth are important to their long-term well being. This means providing youth with access to community-

funded programs that offer a vehicle for youth to experience positive adult and youth role models outside the school setting. It also means according youth the opportunity to have a voice in guiding the current and future direction of their communities.

We would suggest that another way that federal, state and local officials could demonstrate the value they place on youth is to create a "Community Youth Scholarship Program." This program would provide local youth with the financial resources they need to attend community colleges, vocational schools or four-year colleges/universities. The only stipulation is that youth would be required to return to their home community upon graduation for a specified number of years for the purpose of contributing their talents to their community. Just think how this would help rural communities who are trying to find creative ways to stem the loss of talented young people who depart after high school, rarely returning upon completion of their post-high school education.

The idea is not too far-fetched. The city of Kingsport and its county leaders recently decided to set aside $250,000 per year from their government general funds to send high school graduates to the local community college. Why are they doing so? It is because local leaders believe that it will help keep the brainpower available locally to support the area's long-term economic advancement (CNN, 2002).

Create an Entrepreneurial Spirit in Rural Communities

It has been our observation over the years that many rural communities continue to pursue an economic development strategy that is destined to be unsuccessful. Too many local economic development officers still operate with a mindset that they can successfully capture the next automobile plant or other large-scale manufacturing firms. As a result, they fail to consider approaches that build on the talents and resources of their communities. Marty Strange reminds us "sustainable development is not merely about jobs. . . . It is about the commitment of entrepreneurs and other employers to a community, not about footloose investments attracted by incentives and other concessions" (Strange, 1996).

No doubt, the economic health of rural communities must depend on a multi-faceted set of strategies. It includes efforts by local leaders to more fully understand the needs of existing businesses and to find ways to help them expand and become economically viable. It also depends on investing time in uncovering and nurturing the talents that exist in the community already.

Every rural community has people who can become future entrepreneurs. All they need is assistance to move their ideas into action. And rural communities should fully examine the nature of their imports and try to figure out ways in which these products and services can be successfully produced locally.

In essence, if rural communities are to survive economically, it is critical that they devote attention to creating and strengthening internally grown small business enterprises (Shuman, 1998). This is simply common sense when you consider that nearly 64 percent of all establishments in the nation with payrolls employ less than 10 people (U. S. Census, 1998).

A study released in July 2000 by the National Commission on Entrepreneurship outlines the four key ingredients for spurring entrepreneurial activities in communities: (1) access to quality workers; (2) a local community that embraces and nurtures entrepreneurs; (3) local governments that enact public policies that are supportive of entrepreneurial development; and (4) efforts by local economic development officials to make entrepreneurship as an explicit economic development strategy for their communities (National Commission on Entrepreneurship, 2000: 2-3). This represents a tall order for many rural communities, but such challenges

should not deter rural communities from moving forward in addressing these four elements.

Certainly, the federal government can play a part in helping rural localities develop a variety of economic development strategies. However, it is essential that communities be given the flexibility to pursue economic development strategies that build on local entrepreneurial opportunities.

The federal government's new Renewal Community Initiative is the type of effort that can work if done right. Forty renewal communities recently have been selected. While only a few are located in rural areas, the program does offer a variety of tax incentives to spur local economic development activities.

This program can be successful if it places front and center the type of internally focused economic development strategies that we have highlighted above. In the event that outside firms wish to locate to these communities, it is essential that these companies fit into the overall economic development plan the community at large has endorsed.

What rural communities can ill afford are enterprises that have little loyalty to these rural areas once their tax incentives have vanished. To be sustainable, economic development must be driven by local people who represent the interests of the entire community, not by outside forces.

Four key ingredients for spurring entrepreneurial activities in communities:

- Access to quality workers;
- A local community that embraces and nurtures entrepreneurs;
- Local governments that enact public policies that are supportive of entrepreneurial development; and
- Efforts by local economic development officials to make entrepreneurship as an explicit economic development strategy for their communities.

(National Commission on Entrepreneurship, 2000: 2-3)

Build the Digital Capacity of Rural Communities

To many, the advent of the Internet has opened up the windows of opportunity to people and communities across America. In essence, this technology has reduced the cost of social space, allowing individuals living in more remote areas of the U.S. to gain access to information available to those living in the more populated areas of the country. While information technology infrastructure remains a constant challenge for rural areas, many believe that important strides have been made in promoting digital inclusion among all of our nation's residents. A case in point is the 2000 report released by the U.S. Department of Commerce titled, "Falling Through the Net: Toward Digital Inclusion" (2000). It paints an upbeat picture of the significant advances that have been made in the adoption and use of the Internet by Americans.

At the same time, many studies note that ready access to both computers and to the Internet remains more a dream than a reality to countless individuals in the U.S., including the elderly, African-Americans, Hispanics, the less-educated, those of low-income, and persons living in rural areas of our country (Education Week, 2001). Evidence of such disparities has been the basis for the rallying cry regarding the presence of a "digital divide" in this nation (U.S. General Accounting Office, 2001). Increasingly, digital inclusion is becoming a prerequisite for full participation in the economic, political and social life of America (Baker, 2001; Becht et al., 1999).

In fact, it is estimated that 60 percent of current jobs now require some skills in the use of technology (Benton Foundation, 1998). Without such capability, it will be difficult for individuals to fully participate in the more complex, technology-oriented dimensions of our nation's economy (The Century Foundation, 2000).

If rural America is to be fully engaged in the global marketplace, major efforts must be made to improve its access to and use of information technologies. A recent analysis completed on computer access and Internet use by nonmetro adults suggests there is a long way to go in some areas of the country (Beaulieu et al., 2002).

As shown in Figures 8 and 9, most nonmetro areas across the four regions of the country are less inclined to have access to computers in their homes when compared to metro residents and are less likely to use the Internet at work or home. The situation tends to be most problematic in the nonmetro South, followed by the nonmetro Midwest region of the U.S. This suggests that more targeted public-sector investments in advancing the digital infrastructure of nonmetro areas must be considered. Simply put, not all rural areas of the country are part of the digital divide and as such, focused investments on nonmetro areas that are facing the greatest barriers to adoption and use of information technologies must be undertaken.

Expand Civic Engagement in Rural Communities

As they strive to improve the human, economic and technological resources of their areas, rural communities must commit themselves to rebuilding a corps of civically minded citizens. Indeed, rural areas can prove to be welcoming environments because of the strong ties that can be established among local residents. At the same time, rural areas can prove inflexible in their attempts to preserve existing power relationships or to keep things the way they always have been.

Building a civic-minded community takes time. It requires that people who have had little history of engagement in local affairs be given the opportunity to take part in local leadership opportunities. It means finding a mechanism that allows the ideas and issues weighing on the minds of all segments of the community to be heard and discussed (Morse, 1998). Moreover, it demands that local government, local people and local organizations work as equal partners in addressing existing opportunities and challenges. It is this sharing of leadership responsibility that will help generate a network of trust among these entities (Bass, 1997).

We noted earlier that rural communities should do all they can to build an entrepreneurial spirit in their localities. Pursuit of this type of econom-

Figure 8. Computer Access in Metro and Nonmetro Homes, by U.S. Regions

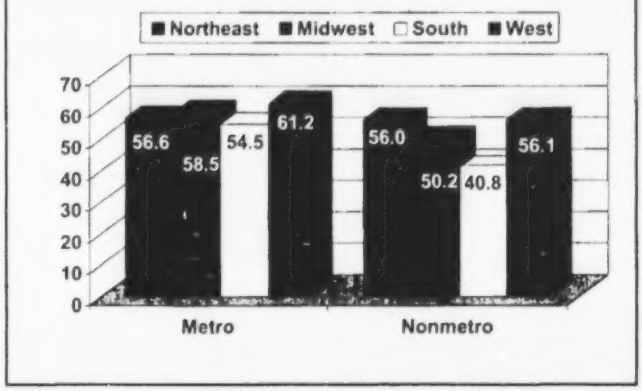
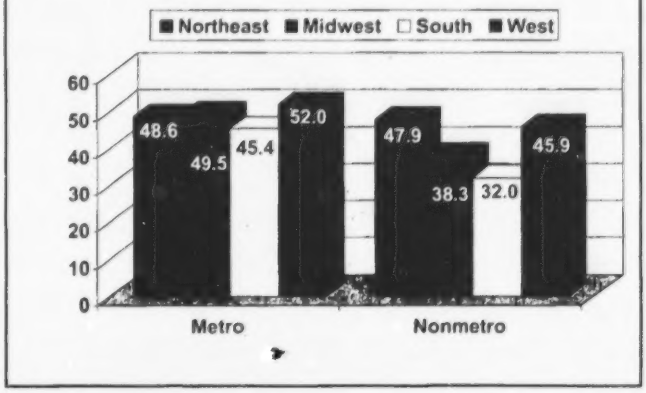


Figure 9. Internet Users in Metro and Nonmetro Areas, by U.S. Regions



ic development strategy appears to contribute to the civic health of communities as well. Recent research by Tolbert and his associates concludes that locally oriented businesses in nonmetropolitan areas have a positive influence on the development of civic communities, communities that have an active involvement in local churches, that expand the presence of local associations, and that provide gathering places for people to interact on local matters of importance (Tolbert et al., 2002).

Building a civically engaged community does necessitate some important shifts in how things get done. It means that the entrenched leadership is no longer at the helm of decision-making. Instead, all segments are actively engaged in guiding the future of their community. New and expanded leadership is not thwarted, but is overtly embraced. And the establishment of locally-oriented small and entrepreneurial businesses is encouraged because of the key contribution they make to the civic health of the community.

Building civically minded citizens within rural communities requires:

- All segments of the community be involved in guiding the future of the community;
- New and expanded leadership development opportunities be provided;
- Leadership responsibilities to be shared; this will help build trust; and
- Support for the establishment of local-oriented small and entrepreneurial businesses.

Communities that subscribe to these principles will find themselves alive and vibrant, positioned to address the challenges that await them. In the process, they will have mobilized one of their most critical assets — their citizens — in taking responsibility for addressing the long-term well-being of their neighborhoods and communities.

Concluding Comments

Rural America now finds itself at a critical juncture. While still home to millions of people, it continues to struggle in its capacity to provide the quality of life that can keep its young people home and that can attract people with new ideas and with strong human capital endowments.

This brief article has attempted to outline some of the key components that will help place rural communities on the path to social and economic success. It has argued that the vitality of rural communities will rest, in part, on four major pillars: a well-educated populace, an economic development plan that builds on local assets, a digital infrastructure that allows access to the global network of information and markets, and a local culture of civic engagement. It is essential that there be a resolve on the part of local people to move forward on these efforts so that the long-term health of their rural communities can be assured.

References

Baker, Paul M. A. 2001. "Policy bridges for the digital divide: Assessing the landscape and gauging the dimensions." *First Monday.* (April).

Bass, Stephen. 1997. "Social capital database: participatory institutional development." International Academic Exchange Conference on Sustainable Agriculture and Sand Control in the Gansu Desert Area. (November).

Becht, Debbie, Kevin Taglang and Anthony Wilhelm. 1999. "The digital divide and the U.S. Hispanic population." *The Digital Beat,* 1 (August).

Beaulieu, Lionel J. and Melissa Barfield. 2000. *Human Capital Endowments and Labor Force Experiences of Southerners: A Ten-Year Perspective.* Report submitted to the TVA Rural Studies Program, University of Kentucky. (May).

Beaulieu, Lionel J., Stephan Goetz and Melissa Barfield. 2002. "Examining the digital divide: Variations in computer access and Internet use across nonmetro regions of the U.S." Paper presented at the Annual Meeting of the Southern Rural Sociological Association, Orlando, FL. (February).

Benton Foundation. 1998. "Defining the technology gap." *Losing Ground Bit by Bit: Low-Income Communities in the Information Age.* (June).

CNN. 2002. "Program sends kids to college for free." CNN.com/Education. (January 30). http://fyi.cnn.com/2002/fyi/teachers.ednews/-01/24/free.tuition.ap/index.html.

Education Week. 2001. "Dividing lines." *Technology Counts 2001: The New Divides.* http://www.edweek.org/sreports/tc01-/tc01article.cfm?slug=35divideintro.h20.

Henderson, Jason R. 2002 "Will the rural economy rebound with the rest of the nation?" *The Main Street Economist: Commentary on the Rural Economy.* Center for the Study of Rural America. Federal Reserve Bank of Kansas City. (January).

Israel, Glenn D., Lionel J. Beaulieu and Glen Hartless. 2001. "The influence of family and community social capital on educational achievement." *Rural Sociology,* 66 (March):43-68.

Israel, Glenn D. and Lionel J. Beaulieu. 2002. *"The Influence of Social Capital on Test Scores: How Much Do Families, Schools and Communities Matter?"* Paper presented at the Annual Meeting of the Southern Rural Sociological Association, Orlando, FL. (February).

Lorence, Jon. 1987. "Gender differences in occupational labor market structure." *Work and Occupations,* 14: 23-61.

Morse, Suzanne W. 1998. "Five building blocks for successful communities." Pp. 229-36 in Frances Hesselbein, Marshall Goldsmith, Richard Beckhard and Richard F. Schubert (eds.), *The Community of the Future.* Drucker Foundation Future Series. San Francisco, CA: Jossey-Bass Publishers.

National Commission on Entrepreneurship. 2000. *Building Companies, Building Communities: Entrepreneurs in the New Economy.* Washington, DC. (July).

Shuman, Michael H. 1998. *Going Local: Creating Self-Reliant Communities in a Global Age.* New York: The Free Press.

Strange, Marty. 1996. "Transforming the rot belt: Sustainable rural communities." *Northwest Report,* newsletter of the Northwest Area Foundation. (January).

Tolbert, Charles M., Michael D. Irwin, Thomas A. Lyson, and Alfred R. Nucci (2002). "Civic community in small-town America: How civic welfare is influenced by local capitalism and civic engagement." *Rural Sociology,* 67 (March): 90-113.

The Century Foundation. 2000. *"Bridging the Digital Divide."* IDEA Brief No. 12 (July).

U.S. Census Bureau. 1998. Statistics of U.S. Business: 1998. http://www.census.gov/epcd/-susb/1998/us/US--.HTM.

U.S. Department of Commerce. 2000. *Falling Through the Net: Toward Digital Inclusion.* Economic and Statistics Administration, National Telecommunications and Information Administration. (October).

United States General Accounting Office. 2001. *Telecommunications: Characteristics and Choices of Internet Users.* Report to the Ranking Minority Member, Subcommittee on Telecommunications, Committee on Energy and Commerce, House of Representatives. GAO-01-345 (February).

SOUTHERN
RURAL
DEVELOPMENT
CENTER

SRDC

Box 9656
Mississippi State, MS 39762
Ph: (662) 325-3207
Fax: (662) 325-8915
http://srdc.msstate.edu

Publication No. 225

14

The Southern Rural Development Center does not discriminate on the basis of race, color, religion, national origin, sex, age, disability or veteran status. 08/02

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

[X] This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

[ ] This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").